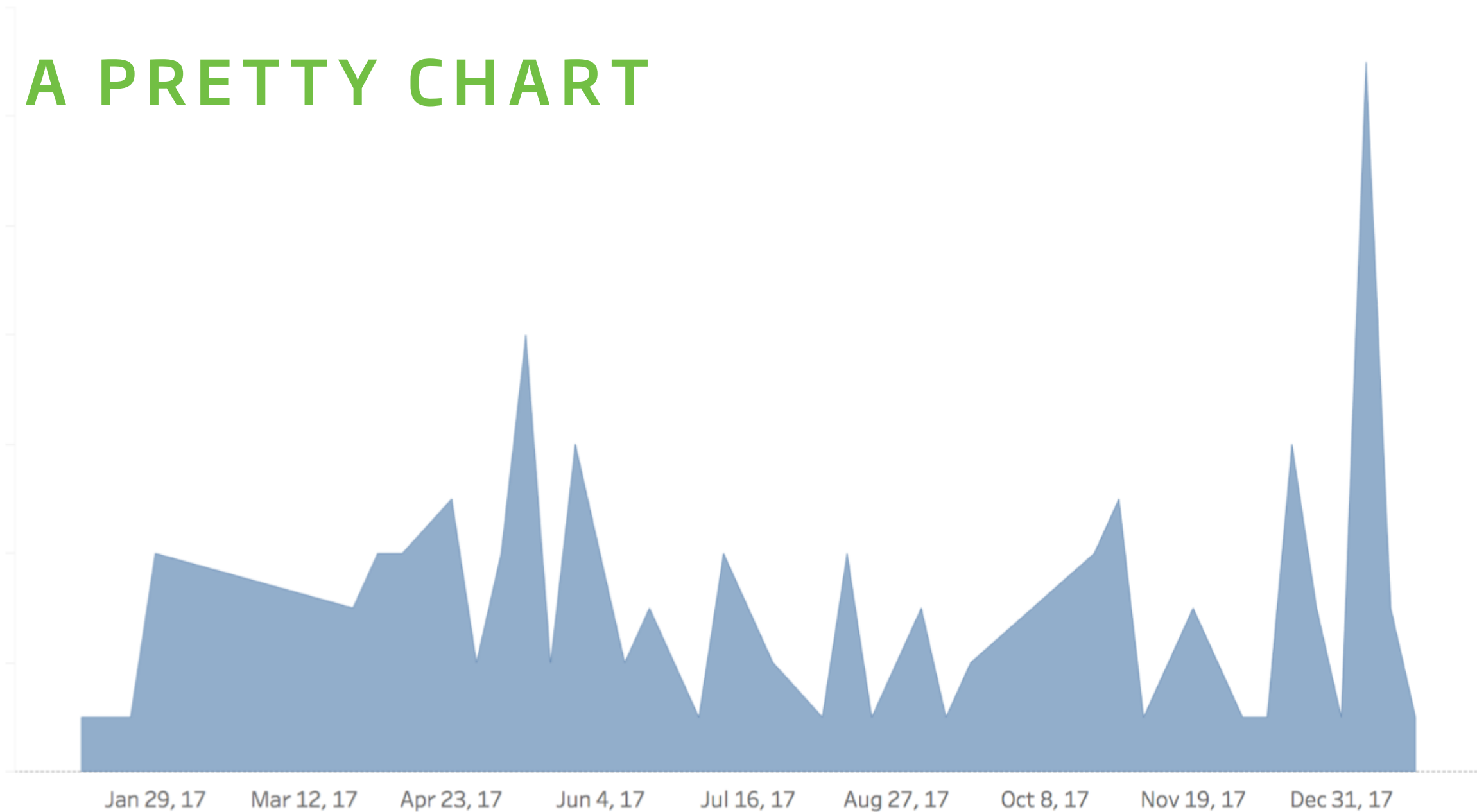




# How Instant Data Can Increase Safety and Reuse of Pesticides

**Charlie Vallely**, Co-Founder / CIO

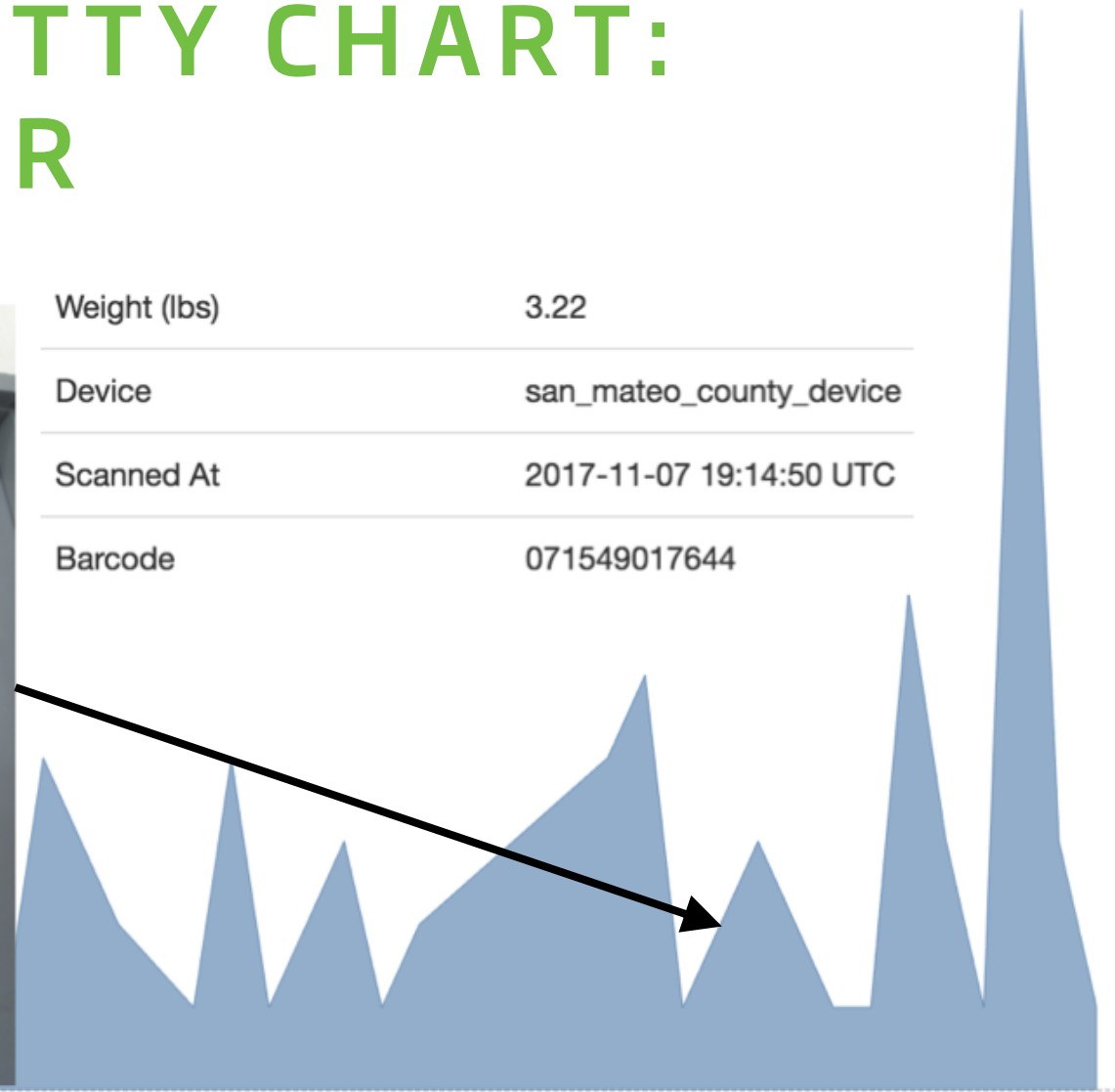
# A PRETTY CHART



# MORE THAN A PRETTY CHART: DIAZINON TRACKER



Weight (lbs)	3.22
Device	san_mateo_county_device
Scanned At	2017-11-07 19:14:50 UTC
Barcode	071549017644



Jan 29, 17

Mar 12, 17

Apr 23, 17

Jun 4, 17

Jul 16, 17

Aug 27, 17

Oct 8, 17

Nov 19, 17

Dec 31, 17



PATENTED &  
PROVEN TECH



Clean  
SYSTE  
LAB-F  
1-800-C  
www.cleaneart





**SMARTER**  
SORTING

# OUR ORIGIN STORY ...

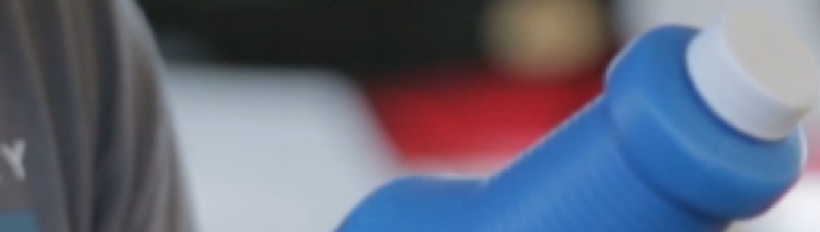
Why are we burning these products?



AUSTIN RESOURCE RECOVERY

RECYCLE

ATLAS  
XTRA





# CRITICAL DATA IS DISCONNECTED

Catalog

Ecommerce

Manufacturer

Chem composition

Reactivity

?



?

Hazards

Shipping regs

California regs

State regs  
(49 other states)

More ...

# WE'RE SOLVING THE DATA DISCONNECT

**1 Data Collection**

**2 Identification**

**3 Machine Learning & Enrichment**



- Patented tech to identify, sort and sell products into reuse.
- Safer, cheaper and greener for gov't, retail and waste companies.



REUSE TO DATE

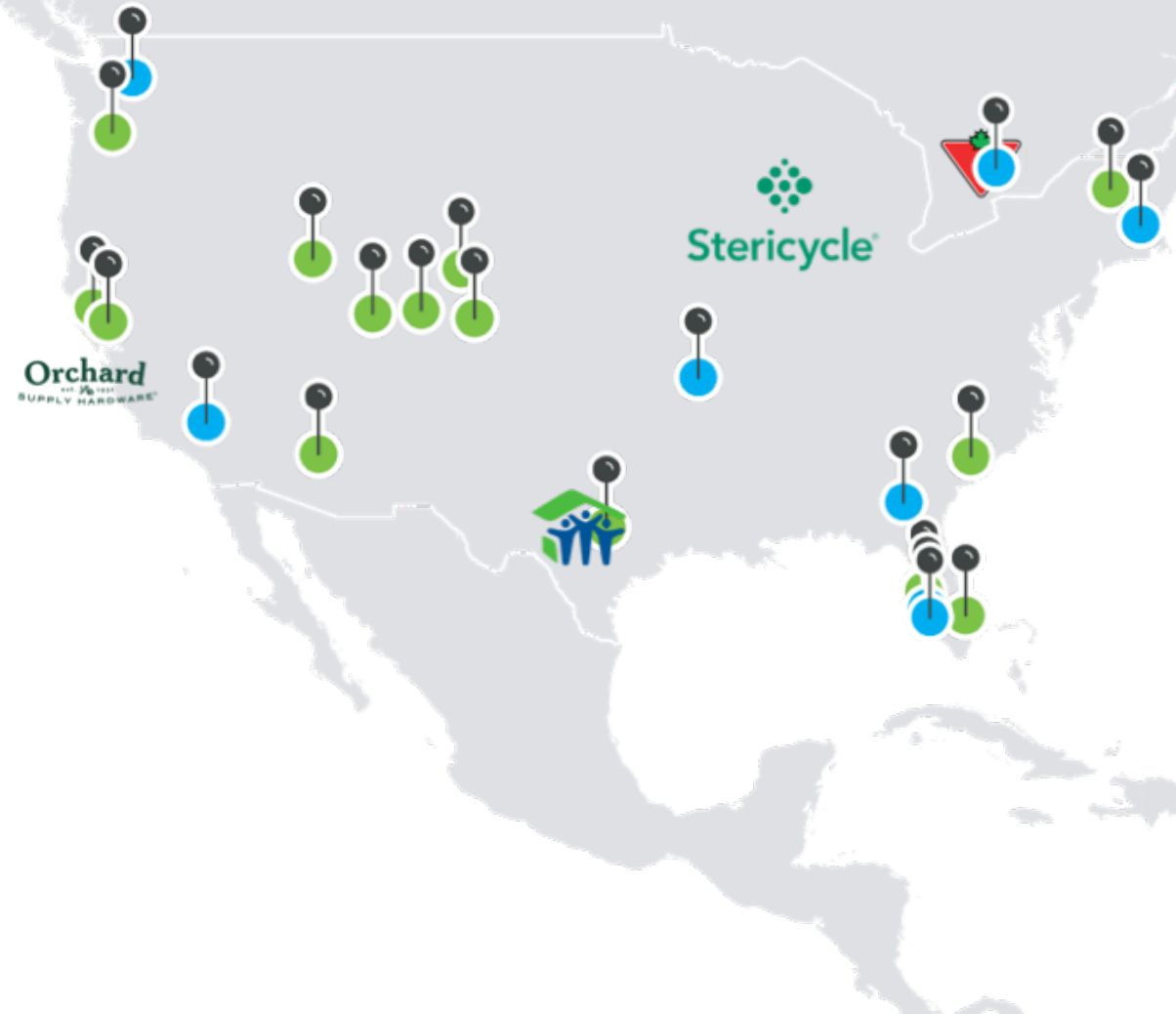
---

50,000 items  
105,000 lbs



# GROWTH = MORE DATA

- Each customer expands ability to identify and categorize **FIFRA regulated products** and their end-of-lifecycle destination
- Our goals: Safety, Compliance, Tracking, Reuse



Let's talk about the data



PATENTED &  
PROVEN TECH



Clean  
SYSTEMS  
LAB-F  
1-800-C  
www.cleaneart



# Key Metrics

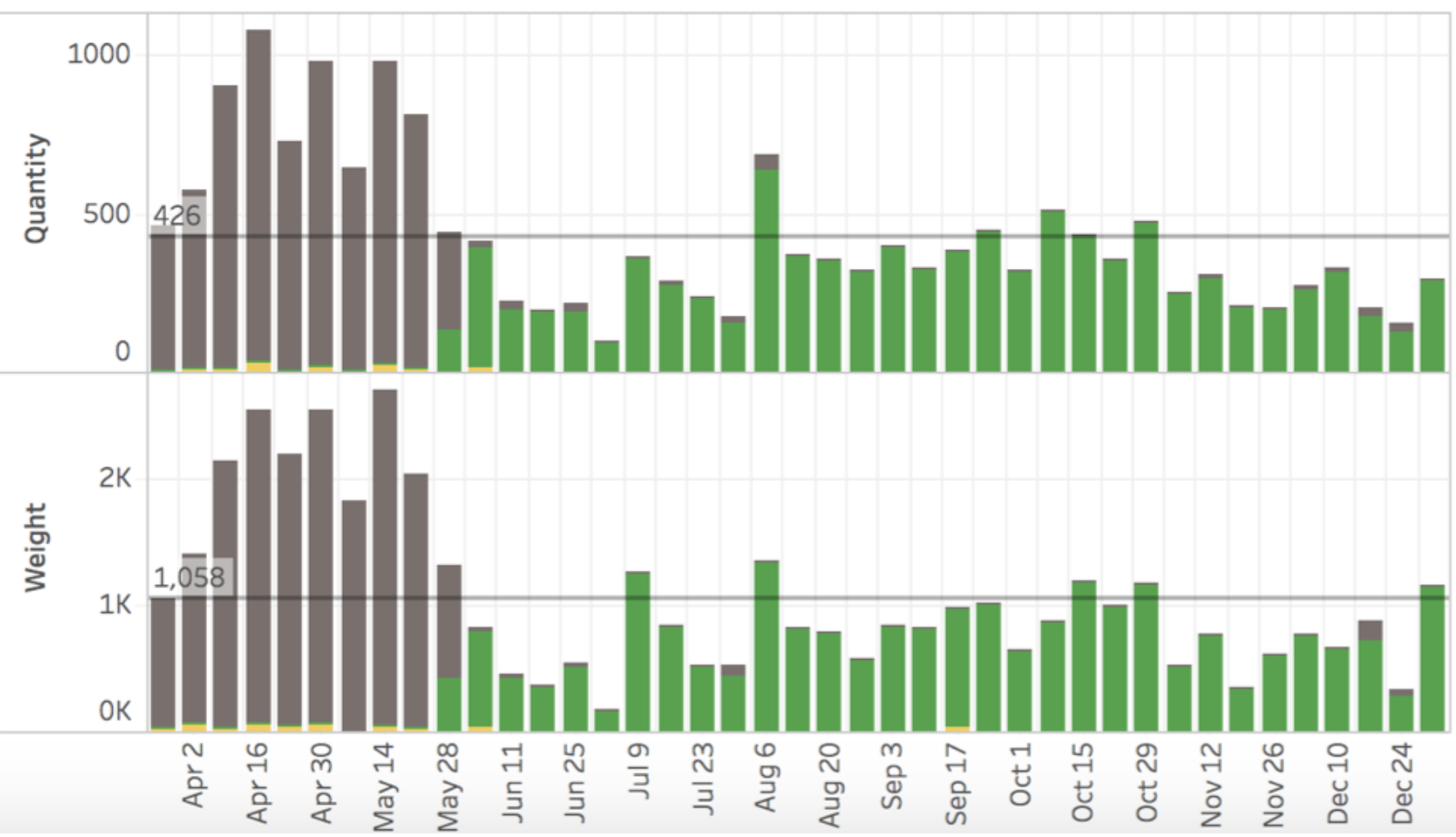
Quantity  
**17,448**

Weight  
**43,368**

Reuse Items  
**9,807**

Reuse Weight (lbs)  
**23,920**

Reuse Rate  
**55%**



## Disposal v Reuse

	Quantity	% of Items a..	Weight	% of Weight..
SS Reuse	9,626	55%	23,405	54%
Disposal	7,641	44%	19,449	45%
Internal Reuse	181	1%	514	1%

■ Disposal    
 ■ SS Reuse    
 ■ Internal Re...

Scan Date

Previous year ▼

WASTE/REUSE TRACKING

# WASTE/REUSE TRACKING

## CTC Shipping Tracker

**Device Name**

**Item Scan Date**

**Package Status**

**Manufacturer Name**

**Moe Code**

**Disposal | Reuse**

**Package Creation Date**

**Selected Package**

**Product Name**

**Package Age (Days)**

### Packages

Disposal   Reuse	Selected Package	MOE	Package Status	Day of Creation Da..	Age (Days)	Qua..	Weight (kg)	Avg Weight
Disposal	263.02 Organics 1..	263L	Shipped	12/7/2017	62	7	16.37	2.34
	262.01 Laundry 1..	262L	Created	12/7/2017	62	6	2.55	0.42

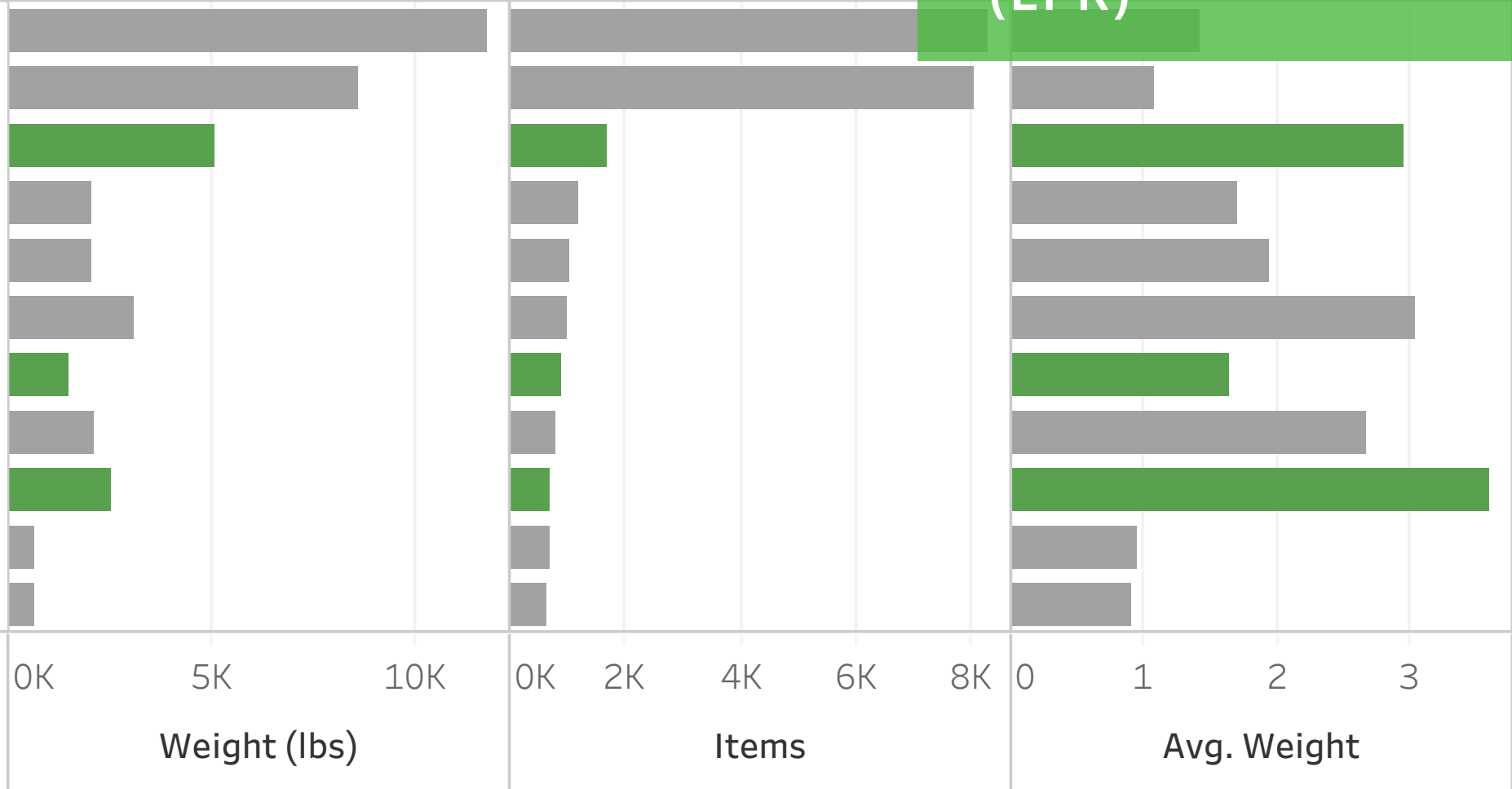
### Package Detail

Selecte d Pack..	Product Name	Manufacturer Name (group)	Quant..	Weight (kg)	Avg Weight
262.01	Dishwashing Gel	Finish	4	0.0	0.00
Laundry 175	HRDWDCLNRRREF128..	BONAKEMI USA INC	1	2.1	2.14
	Method Sea Minerals ..	Method	1	0.4	0.41
263.02 Organic s 176	4x Bottles of VimT« H..	UNILEVER CANADA	1	0.0	0.00
	Notions In Network P..	CJ VENNE INCORPORATE	2	0.3	0.13
	TW ZIPWAX, 3.78L	TURTLE WAX INC (2)	4	16.1	4.03

# TRACKING BY MANUFACTURER (EPR)

Manufacturer Name (group)

The Sherwin-Williams Company  
 RPM International  
 The Scotts Miracle-Gro Company  
 Valspar/Cabot Inc.  
 Benjamin Moore  
 Behr Process Corporation  
 Spectrum Brands  
 Wm Barr  
 Monsanto Company  
 S.C. Johnson & Son Company  
 Reckitt Benckiser Inc.

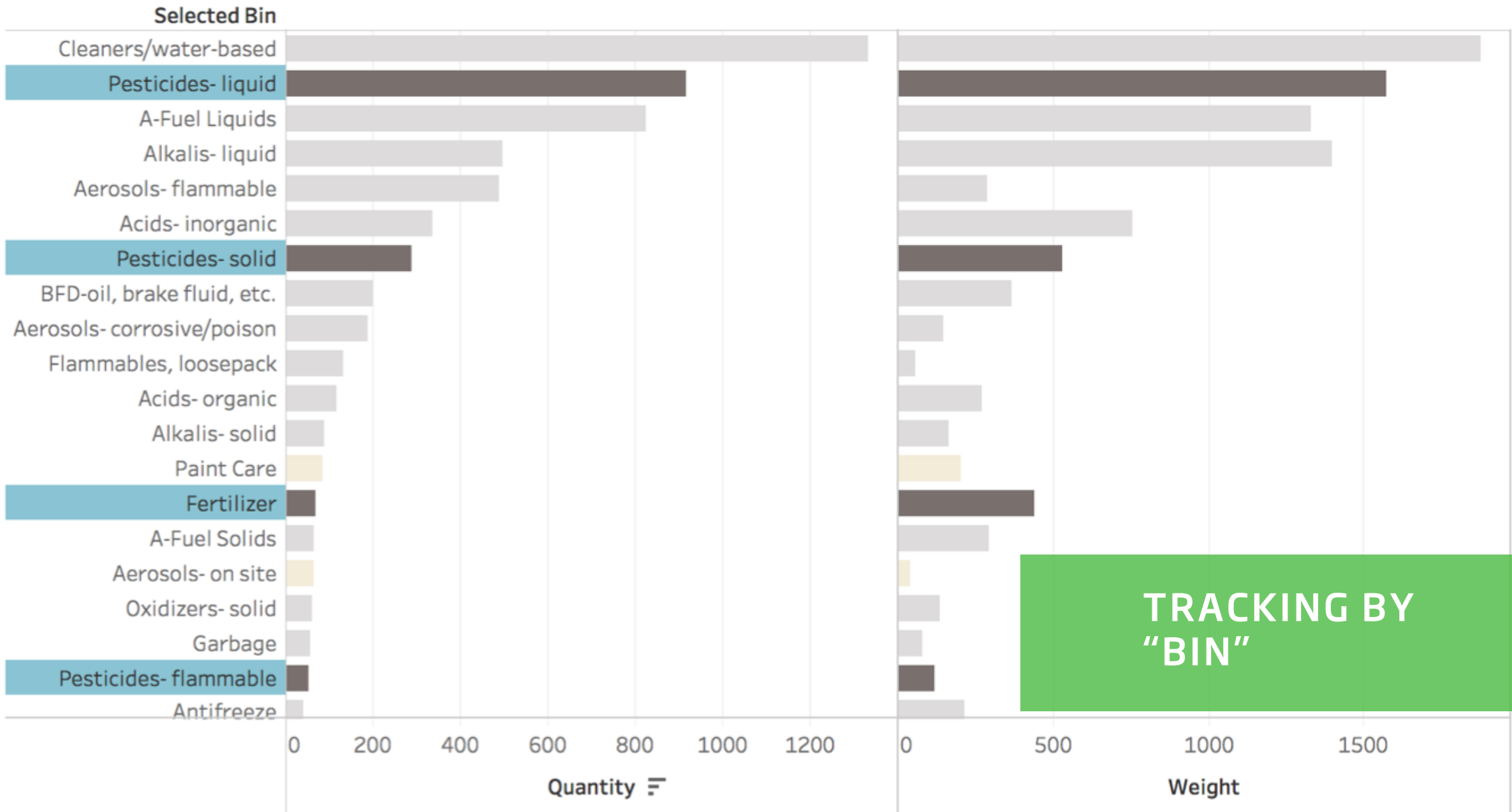


Weight (lbs)

Items

Avg. Weight





Bifenthrin



master-normalized

Selected Fields

chemical\_names

product\_name

sds\_text

manufacturer\_name

Available Fields



Popular

cas\_numbers

categories

category

country\_of\_origin

desc

ph\_level

product_name	manufacturer_name	chemical_names	sds_text
▶ STINGER FIRE ANT KILLER 4 LB	BONIDE PRODUCTS INC	[{"cas_number": "82657-04-3", "chemicals": ["Bifenthrin [ANSI:BSI:ISO]", "Bifenthrin [ANSI:BSI:ISO]", "Bifenthrin"]}]	Material Safety Data Sheet May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.
▶ GARDENTECH OVER N OUT FIRE ANT KILLER BIFENTHRIN 23 LB	TECH PAC LLC	[{"cas_number": "82657-04-3", "chemicals": ["Bifenthrin [ANSI:BSI:ISO]", "Bifenthrin [ANSI:BSI:ISO]", "Bifenthrin"]}]	MATERIAL SAFETY DATA SHEET Product Numbers: F8000, 8016, F8020, F8030, F8036, 8037 SAP Numbers: 100505434, 100505436, 100506105, 100505438, 100505439, 100508657
▶ STINGER FIRE ANT KILLER 8 LB	BONIDE PRODUCTS INC	[{"cas_number": "82657-04-3", "chemicals": ["Bifenthrin [ANSI:BSI:ISO]", "Bifenthrin [ANSI:BSI:ISO]", "Bifenthrin"]}]	Material Safety Data Sheet May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

DEEP, SDS-DRIVEN DATA

## Scanned Images



## Scanning Info

Operator	Amanda Pole
Quantity	1
Weight (lbs)	0.96
Device	portland_device
Scanned At	2017-04-15 17:46:12 UTC
Barcode	037321009924

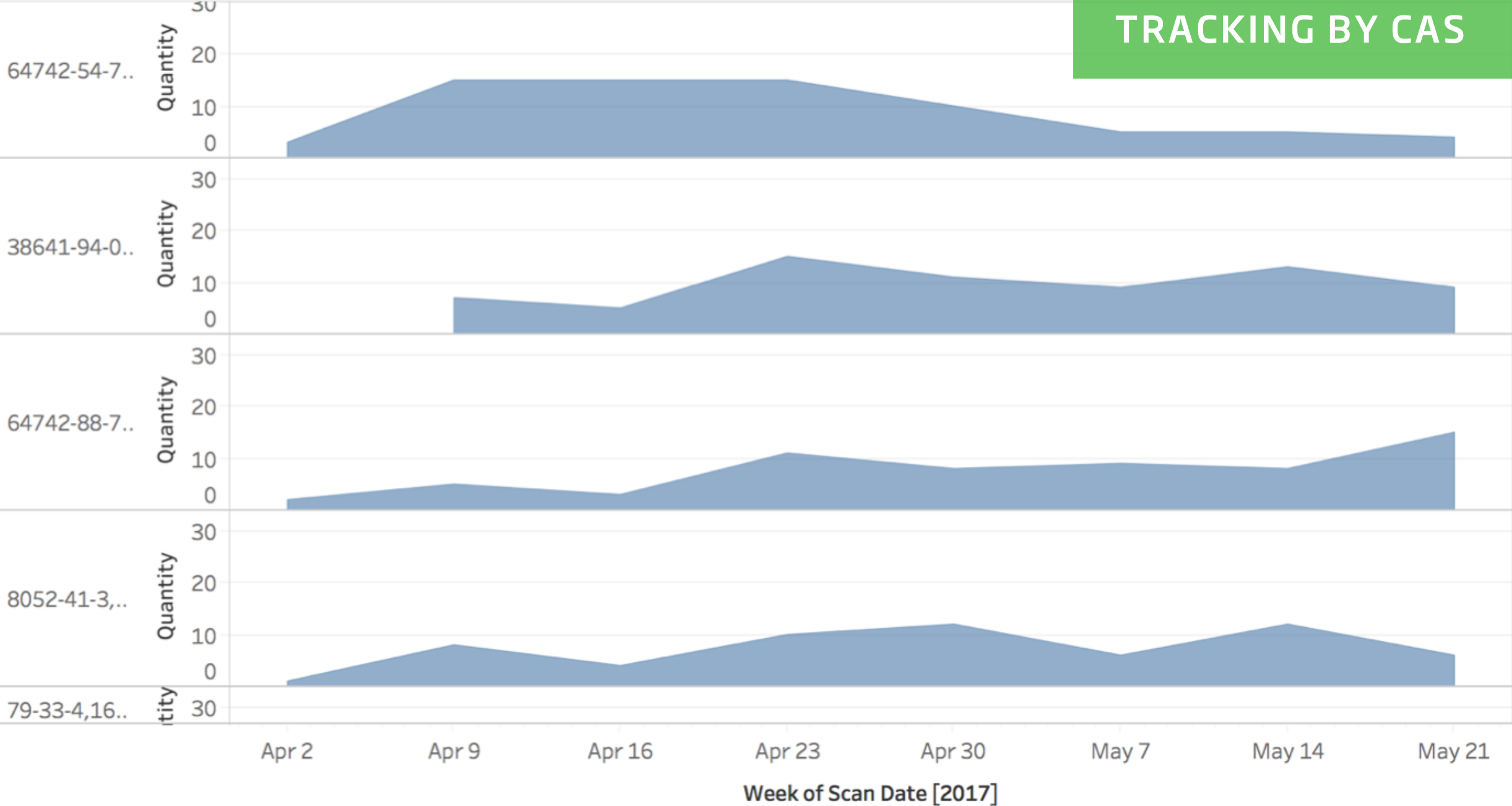
# cas_numbers_priority	🔍 📄 * 49
t categories	🔍 📄 * Home & Garden > Yard, Garden & Outdoor Living > Gardening Supplies > Weed & Pest Control > Other Weed & Pest Control
# categories_priority	🔍 📄 * 10
t ph_level	🔍 📄 * 2.9
t chemical_names	🔍 📄 * [{"cas_number": "121-75-5", "chemicals": ["Malathion [USP:BAN]", "Malathion", "Malathion [USP:BAN]", "Malathion", "((Dimethoxyphosphinothiyl)thio)butanedioic acid diethyl ester", "4-03-00-01136 (Beilstein Handbook Reference)", "AC 26691", "AI3-17034", "American cyanamid 4,049", "BRN 1804525", "Butanedioic acid, ((dimethoxyphosphinothiyl)-thio)-, diethyl ester, (+-)-", "Butanedioic acid, ((dimethoxyphosphinothiyl)thio)-, diethyl ester", "Camathion", "Carbethox

CAN DATA  
CREATE "LABELS"  
FOR USED  
PRODUCTS?



# Cas Numbers

TRACKING BY CAS



# Products

Product Name	Items	Weight
30 Seconds 1G30S Biodegradable Concentrated O..	16	85.6
Tarn-X Tarnish Remover Metal Polish (TX-6)	12	6.7
Murphys 01106 / 01102 32 Ounce Liquid Oil Soap	11	14.3
<b>Resolve 1920000601 Carpet Cleaner</b>	<b>10</b>	<b>9.7</b>
Jelmar CL-12 CLR Remover Calcium/Lime/Rust 28 ..	9	12.6
Central Garden 100099020 Moss B Ware Moss-B-..	8	23.7
Pennzoil 550022792 Penz QT 10W30 Motor Oil (Ca..	8	7.1
Rug Doctor Anti Foam 074999011262	8	7.8
Zinsser 02422 DIF Liquid Concentrate Wallpaper S..	8	10.1
Armor All 10160 Leather And Vinyl Protectant 16 ..	7	6.1
Coleman Propane Cylinder, 16.4 oz	7	6.0
3M 4101 Scotchgard Fabric Protector For Fabric & ..	6	4.4
5-gal. #HDGG49 Soft Sage Flat Latex Interior Pain..	6	6.1
Ortho Orthene 071549016210	6	4.3
Rust-Oleum 10oz Stops Rust Reformer Spray in Fl..	6	4.8
Static Guard Static Cling Spray, Fresh Scent, 5.5 oz	6	1.8
Turtle Wax 16oz Bug & Tar Remover (T520A)	6	4.9
"LYSOL Brand Disinfectant Spray, Crisp Linen Scen..	5	5.7
1 Gal. Moss Out for Lawns	5	41.5
10 lb. Weed Granules	5	34.4
Soap	5	6.2
Upholstery ..	5	5.3
Force Slug/..	5	8.1
Shower/T..	5	6.2
Coleman 5103B164T Coleman 16.4 Oz Propane Fuel	5	7.8

## SAFETY DATA SHEETS

Conforms to USDOL OSHA 29CFR 1910.1206 HAZCOM

# SAFETY DATA SHEET



HEALTH • HYGIENE • HOME

RESOLVE TRIPLE ACTION STAIN REMOVER CARPET CLEANER

## 1. Product and company identification

<b>Product name</b>	RESOLVE TRIPLE ACTION STAIN REMOVER CARPET CLEANER
<b>Distributed by</b>	: Reckitt Benckiser LLC. Morris Corporate Center IV 399 Interpace Parkway (P.O. Box 225) Parsippany, New Jersey 07054-0225 +1 973 404 2600
<b>Emergency telephone number (Medical)</b>	: 1-800-338-6167
<b>Emergency telephone number (Transport)</b>	: 1-800-424-9300 (U.S. & Canada) CHEMTREC Outside U.S. and Canada (North America), call Chemtrec:703-527-3887
<b>Website:</b>	: <a href="http://www.rbnainfo.com">http://www.rbnainfo.com</a>
<b>Product use</b>	: Carpet Cleaners (Trigger Spray)

This SDS is designed for workplace employees, emergency personnel and for other conditions and situations where there is greater potential for large-scale or prolonged exposure, in accordance with the requirements of USDOL Occupational Safety and Health Administration.

This SDS is not applicable for consumer use of our products. For consumer use, all precautionary and first aid language is provided on the product label in accordance with the applicable government regulations, and shown in Section 15 of this SDS.

<b>SDS #</b>	: D0171110 v.4
<b>Formulation #:</b>	: #0247446

## 2. Hazards identification

**Classification of the substance or mixture** : SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

**GHS label elements**  
**Hazard pictograms** :



**Signal word** : Warning  
**Hazard statements** : Causes serious eye irritation.

**Precautionary statements**  
**General** : Read label before use. Keep out of reach of children. If medical advice is needed,

Site	Hazard Codes	Hazard Codes 2	Items	Weight
Mesa County	H315, H302, H318, H373	Causes skin irritation, Harmful if swallowed, ..	18	24.50
	H270, H302, H331, H312	May cause or intensify fire; oxidizer, Harmful ..	7	6.90
	H336, H302, H319, H226, ..	May cause drowsiness or dizziness, Harmful i..	7	4.26
	H336, H315, H320, H332	May cause drowsiness or dizziness, Causes s..	7	9.94
	H336, H317, H302, H319, ..	May cause drowsiness or dizziness, May caus..	7	4.90
	H304	May be fatal if swallowed and enters airways	6	17.50
	H315, H302, H319, H316, ..	Causes skin irritation, Harmful if swallowed, ..	6	6.28
	H315, H319	Causes skin irritation, Causes serious eye irri..	6	10.54
	H317, H302, H226, H222, ..	May cause an allergic skin reaction, Harmful i..	6	5.06
	H336, H315, H350, H340, ..	May cause drowsiness or dizziness, Causes s..	6	5.06
	H317, H302, H320	May cause an allergic skin reaction, Harmful i..	5	24.20
	H317, H302, H226, H372, ..	May cause an allergic skin reaction, Harmful i..	4	8.46
	H317, H302, H350, H340, ..	May cause an allergic skin reaction, Harmful i..	4	13.20
	H317, H302, H350, H340, ..	May cause an allergic skin reaction, Harmful i..	4	31.06
	H319, H373, 19-5	Causes serious eye irritation, May cause dam..	4	4.74
	H336, H302, H319, H226, ..	May cause drowsiness or dizziness, Harmful i..	4	1.98
	H336, H315, H335, H242, ..	May cause drowsiness or dizziness, Causes s..	4	22.46
	H336, H315, H335, H251, ..	May cause drowsiness or dizziness, Causes s..		
	H336, H315, H350, H340, ..	May cause drowsiness or dizziness, Causes s..		
	H336, H319, H226, H222, ..	May cause drowsiness or dizziness, Causes s..		
	H336, H319, H226, H373, ..	May cause drowsiness or dizziness, Causes s..		
	H336, H350, H340, H319, ..	May cause drowsiness or dizziness, May caus..	4	2.28
	H360, H315, H319, H225, ..	May damage fertility or the unborn child, Cau..	4	3.34

**HAZARD  
TRACKING**



Product Name	Manufacturer Name	Items	Weight	Avg. Weight
DAIDO CORPORATION THA2050-3PK Offset Link	DAIDO CORPORATION	1	24.74	24.74
Thompson Clear Wood Protector 032053118050	ACE HARDWARE CORP	1	20.56	20.56
Clorox 24 Pound (24 1 Pound bags) Pool and Shock Plus 4 in 1 Formu..	The Clorox Company	1	17.64	17.64
Masterchem 20000 Kilz 5 Gallon Stain Primer/Sealer	Masterchem Industries LLC	1	16.74	16.74
Scotts Turf Builder Weed & Feed 032247297202	The Scotts Miracle-Gro Company	1	16.12	16.12
Lilly Miller 100099164 Moss Out Moss Out Lawn Granules 20 Pound	Central Garden & Pet Company	2	30.64	15.32
Scotts Turf Builder Plus 2 Weed Control 032247249843	The Scotts Miracle-Gro Company	1	15.24	15.24
Ortho Samsung Impression Hooded Skull Phantom Design Snap On ..	The Scotts Company LLC	1	14.08	14.08
Lilly Miller Rhododendron Evergreen And Azalea Food 10-5-4 16lb	Central Garden & Pet Company	1	13.32	13.32
Scotts Lawns #23309 5M Lawn Fertilizer/Iron	The Scotts Miracle-Gro Company	1	12.94	12.94
Weed B Gone Max Plus Crbgrass Ready-to-Use 1.3Gl - Part #: 424010	SCOTT'S CO	1	12.38	12.38
Simpleset,® Pre-Mixed Ceramic Tile Thin-Set Mortar	Custom Building Products	1	12.18	12.18
Hyponex All Purpose Garden Fertilizer And Lawn Starter 07164523..	Hyponex Company Inc	1	12.16	12.16
1-Gallon Pure White Eggshell Enamel Interior Paint	Behr Process Corporation	1	12.00	12.00
1-Gallon Gray Latex Waterproofing Paint	United Gilsonite Laboratories	1	11.88	11.88
Ortho Ground Clear, 1 Gal	The Scotts Miracle-Gro Company	1	11.28	11.28
Behr No. 991 Concrete Etcher Rust Remover 082474991015	Behr Process Corporation	1	11.12	11.12
Mobil 1 98KY22 10W-30 Synthetic Motor Oil - 5.1 Quart Jug	ExxonMobil Corp.	2	21.50	10.75
25 lb. Life All Purpose Fertilizer	DR. EARTH	1	10.72	10.72

**"WASTED PRODUCT"**

Inspect

Show

Edit

Delete

### Scanned Images



### Item

Operator	Enrique Vargas
Quantity	1
Device	portland_device
Scanned At	2017-06-23 14:47:14 UTC
Barcode	070612781734
Weight (lbs)	0.96
Validated At	2017-06-23 23:34:19 UTC

### Web Scraping Statistics



### Web Scraping Results

- hardwareandtools.com
- rakuten.com
- walmart.com
- walmart.com
- amazon.com
- ebay.com
- buycott.com



Scrape Result ID	58eff0bf853006000745d6c8
Category	Interior Polishes, Waxes & Protectants
Model Num	78173

AUDIT TRAIL FOR EVERY PRODUCT

## DIAZINON TRACKER (MESA)

<b>Diazinon</b>	Items	20
	Weight	35.58
	Avg. Weight	1.78

	Items	Weight
Scotts Diazinon PI 071549017620	10	16.84
ORTHO DIAZINON PLUS INSECT SPRAY INSECTICIDE	4	3.06
10400 32oz Diazinon Concentrat 071121104007	2	4.18
5% diazinon hi-yield 2lb	1	0.52
Maxide Concentrate Diazinon Insect Killer 021496374147	1	2.38
Ortho Bug B Gon 071549017125	1	7.46
Ortho Diazinon Grn 071549025823	1	1.14

# DIAZINON TRACKER (MESA)

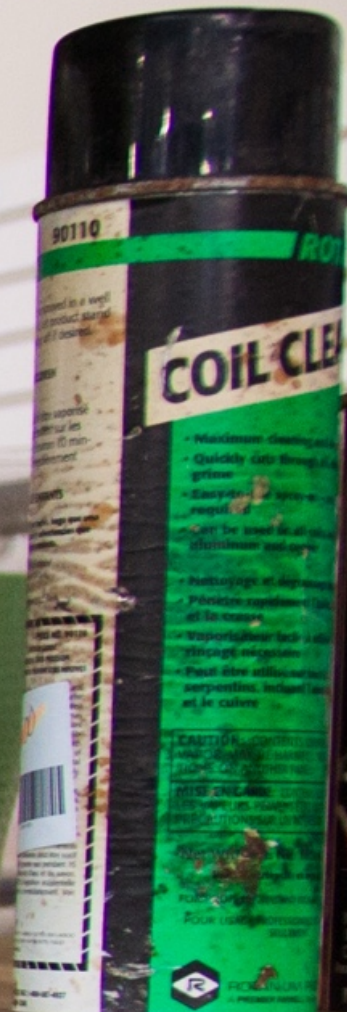
## Scanned Images



Item	
Operator	Hope Petrie
Quantity	1
Device	mesa_device
Scanned At	2017-05-19 18:19:11 UTC
Barcode	021496374147
Weight (lbs)	2.38
Validated At	2017-08-10 20:37:00 UTC



REUSE



Automotive Cleaners, Wax, and Polish



INNOVATION STARTS  
IN AUSTIN

ReStore

OFFICE



REUSE

# WE WANT TO WORK WITH YOU

- Data analysis
- Extended Producer Responsibility
- Stewardship
- Reuse



# SMARTER SORTING TEAM

## CORE TEAM



**Chris Ripley**  
Founder/CEO



**Charlie Vallely**  
Founder/CIO



**Russ Foltz-Smith**  
Senior Tech Advisor

### Software / Data

Serge Madenian, Nathan Lowery, Schoeller Porter, Shawn Marhanka, Sanhita Joshi, Joe Marty, Jason Melbourne, Atticus Ross-Fountain, Zihao Zhang

### Operations

Zane Pace, Maya Carrillo, Blake Weems, Margaret Spear, Katy McIntosh, Biz Yarbrough, Bryce Denning

### Business Dev

Victoria Hodge, Jack Price

### Sustainability

Scott Mackey

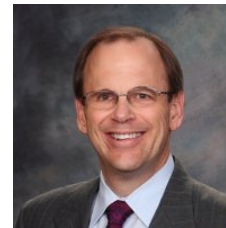
## ADVISORS



Fred Gabriel  
PaintCare



**Bob Campbell**  
Deloitte



Carl Smith  
Call2Recycle



Rick Findlay  
Eco Consultant



Trey Herschap  
Fmr: HomeAway



Ken Erickson  
Fmr: Costco

## PARTNERS

